

SEQUENCE LISTING

<110> Urbaniak, Stanislaw J.
Barker, Robert, N.

<120> ALLO- AND AUTO-REACTIVE T-CELL EPITOPES

<130> P097

<140> 09/857,097
<141> 1999-12-01

<150> 9826378.3
<151> 1998-12-01

<160> 152

<170> PatentIn Ver. 2.1

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<400> 1
Ser Ser Lys Tyr Pro Arg Ser Val Arg Arg Cys Leu Pro Leu Trp
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<400> 2
Cys Leu Pro Leu Trp Ala Leu Thr Leu Glu Ala Ala Leu Ile Leu
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<400> 3
Ala Ala Leu Ile Leu Leu Phe Tyr Phe Phe Thr His Tyr Asp Ala
1 5 10 15

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<400> 4
Thr His Tyr Asp Ala Ser Leu Glu Asp Gln Lys Gly Leu Val Ala
1 5 10 15

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<400> 5
Lys Gly Leu Val Ala Ser Tyr Gln Val Gly Gln Asp Leu Thr Val
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<400> 6
Gln Asp Leu Thr Val Met Ala Ala Leu Gly Leu Gly Phe Leu Thr
1 5 10 15

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<400> 7
Leu Gly Phe Leu Thr Ser Asn Phe Arg Arg His Ser Trp Ser Ser
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<400> 8
His Ser Trp Ser Ser Val Ala Phe Asn Leu Phe Met Leu Ala Leu
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Phe Met Leu Ala Leu Gly Val Gln Trp Ala Ile Leu Leu Asp Gly
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Ile Leu Leu Asp Gly Phe Leu Ser Gln Phe Pro Pro Gly Lys Val
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<400> 11
Pro Pro Gly Lys Val Val Ile Thr Leu Phe Ser Ile Arg Leu Ala
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<400> 12
Ser Ile Arg Leu Ala Thr Met Ser Ala Met Ser Val Leu Ile Ser

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<400> 13
Ser Val Leu Ile Ser Ala Gly Ala Val Leu Gly Lys Val Asn Leu
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Gly Lys Val Asn Leu Ala Gln Leu Val Val Met Val Leu Val Glu
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Met Val Leu Val Glu Val Thr Ala Leu Gly Thr Leu Arg Met Val
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Thr Leu Arg Met Val Ile Ser Asn Ile Phe Asn Thr Asp Tyr His
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Asn Thr Asp Tyr His Met Asn Leu Arg His Phe Tyr Val Phe Ala
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Phe Tyr Val Phe Ala Ala Tyr Phe Gly Leu Thr Val Ala Trp Cys
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Thr Val Ala Trp Cys Leu Pro Lys Pro Leu Pro Lys Gly Thr Glu
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Pro Lys Gly Thr Glu Asp Asn Asp Gln Arg Ala Thr Ile Pro Ser
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Ala Thr Ile Pro Ser Leu Ser Ala Met Leu Gly Ala Leu Phe Leu
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Gly Ala Leu Phe Leu Trp Met Phe Trp Pro Ser Val Asn Ser Pro
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<400> 23
Ser Val Asn Ser Pro Leu Leu Arg Ser Pro Ile Gln Arg Lys Asn
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<400> 24
Ile Gln Arg Lys Asn Ala Met Phe Asn Thr Tyr Tyr Ala Leu Ala
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<400> 25
Tyr Tyr Ala Leu Ala Val Ser Val Val Thr Ala Ile Ser Gly Ser
1 5 10 15

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<400> 26
Ala Ile Ser Gly Ser Ser Leu Ala His Pro Gln Arg Lys Ile Ser
1 5 10 15

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<400> 27
Gln Arg Lys Ile Ser Met Thr Tyr Val His Ser Ala Val Leu Ala
1 5 10 15

<210> 28
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<400> 28
Ser Ala Val Leu Ala Gly Gly Val Ala Val Gly Thr Ser Cys His
1 5 10 15

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<213> RhCE (R2 CE)

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<400> 29
Gly Thr Ser Cys His Leu Ile Pro Ser Pro Trp Leu Ala Met Val
1 5 10 15

<210> 30
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<400> 30
Trp Leu Ala Met Val Leu Gly Leu Val Ala Gly Leu Ile Ser Ile
1 5 10 15

<210> 31
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<400> 31
Gly Leu Ile Ser Ile Gly Gly Ala Lys Cys Leu Pro Val Cys Cys
1 5 10 15

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<400> 32
Leu Pro Val Cys Cys Asn Arg Val Leu Gly Ile His His Ile Ser
1 5 10 15

<210> 33
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<212> PRT
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<400> 33
Ile His His Ile Ser Val Met His Ser Ile Phe Ser Leu Leu Gly
1 5 10 15

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<400> 34

Phe Ser Leu Leu Gly Leu Leu Gly Glu Ile Thr Tyr Ile Val Leu
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<400> 35
Thr Tyr Ile Val Leu Leu Val Leu His Thr Val Trp Asn Gly Asn
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<400> 36
Val Trp Asn Gly Asn Gly Met Ile Gly Phe Gln Val Leu Leu Ser
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<400> 37
Gln Val Leu Leu Ser Ile Gly Glu Leu Ser Leu Ala Ile Val Ile
1 5 10 15

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<400> 38
Leu Ala Ile Val Ile Ala Leu Thr Ser Gly Leu Leu Thr Gly Leu
1 5 10 15

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<400> 39
Leu Leu Thr Gly Leu Leu Leu Asn Leu Lys Ile Trp Lys Ala Pro
1 5 10 15

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<400> 40
Ile Trp Lys Ala Pro His Val Ala Lys Tyr Phe Asp Asp Gln Val
1 5 10 15

<210> 41
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<400> 41
Phe Asp Asp Gln Val Phe Trp Lys Phe Pro His Leu Ala Val Gly
1 5 10 15

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<213> RhCE (R2 CE)

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<400> 42
Asp Asp Gln Val Phe Trp Lys Phe Pro His Leu Ala Val Gly Phe
1 5 10 15

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<400> 43

Ser	Ser	Lys	Tyr	Pro	Arg	Ser	Val	Arg	Arg	Cys	Leu	Pro	Leu	Cys
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<400> 44

Cys	Leu	Pro	Leu	Cys	Ala	Leu	Thr	Leu	Glu	Ala	Ala	Leu	Ile	Leu
1				5				10						15

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<400> 45

Gly	Ala	Leu	Phe	Leu	Trp	Met	Phe	Trp	Pro	Ser	Val	Asn	Ser	Ala
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<400> 46

Ser	Val	Asn	Ser	Ala	Leu	Leu	Arg	Ser	Pro	Ile	Gln	Arg	Lys	Asn
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<400> 47

Gln	Asp	Leu	Thr	Val	Met	Ala	Ala	Ile	Gly	Leu	Gly	Phe	Leu	Thr
1				5				10						15

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<400> 48
Leu Gly Phe Leu Thr Ser Ser Phe Arg Arg His Ser Trp Ser Ser
1 5 10 15

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<400> 49
Ile Leu Leu Asp Gly Phe Leu Ser Gln Phe Pro Ser Gly Lys Val
1 5 10 15

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<400> 50
Pro Ser Gly Lys Val Val Ile Thr Leu Phe Ser Ile Arg Leu Ala
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<400> 51
Ser Ile Arg Leu Ala Thr Met Ser Ala Leu Ser Val Leu Ile Ser
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<400> 52

Ser Val Leu Ile Ser Val Asp Ala Val Leu Gly Lys Val Asn Leu
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<400> 53

Met Val Leu Val Glu Val Thr Ala Leu Gly Asn Leu Arg Met Val
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<210> 54

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<400> 54

Asn Leu Arg Met Val Ile Ser Asn Ile Phe Asn Thr Asp Tyr His
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<210> 55

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<400> 55

Asn Thr Asp Tyr His Met Asn Met Met His Ile Tyr Val Phe Ala
1 5 10 15

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<400> 56
Ile Tyr Val Phe Ala Ala Tyr Phe Gly Leu Ser Val Ala Trp Cys
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<400> 57
Ser Val Ala Trp Cys Leu Pro Lys Pro Leu Pro Glu Gly Thr Glu
1 5 10 15

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<400> 58
Pro Glu Gly Thr Glu Asp Lys Asp Gln Thr Ala Thr Ile Pro Ser
1 5 10 15

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<400> 59
Gly Ala Leu Phe Leu Trp Ile Phe Trp Pro Ser Phe Asn Ser Ala
1 5 10 15

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<400> 60
Ser Phe Asn Ser Ala Leu Leu Arg Ser Pro Ile Glu Arg Lys Asn
1 5 10 15

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<400> 61
Ile Glu Arg Lys Asn Ala Val Phe Asn Thr Tyr Tyr Ala Val Ala
1 5 10 15

<210> 62
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<213> RhD

<220>
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<400> 62
Tyr Tyr Ala Val Ala Val Ser Val Val Thr Ala Ile Ser Gly Ser
1 5 10 15

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<400> 63
Ala Ile Ser Gly Ser Ser Leu Ala His Pro Gln Gly Lys Ile Ser
1 5 10 15

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<400> 64
Gln Gly Lys Ile Ser Lys Thr Tyr Val His Ser Ala Val Leu Ala
1 5 10 15

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<400> 65
Trp Leu Ala Met Val Leu Gly Leu Val Ala Gly Leu Ile Ser Val
1 5 10 15

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<220>
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<400> 66
Gly Leu Ile Ser Val Gly Gly Ala Lys Tyr Leu Pro Gly Cys Cys
1 5 10 15

<210> 67
<211> 15
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<400> 67
Leu Pro Gly Cys Cys Asn Arg Val Leu Gly Ile Pro His Ser Ser
1 5 10 15

<210> 68
<211> 15
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<213> RhD

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<400> 68
Ile Pro His Ser Ser Ile Met Gly Tyr Asn Phe Ser Leu Leu Gly
1 5 10 15

<210> 69
<211> 15
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<213> RhD

<220>
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<400> 69
Phe Ser Leu Leu Gly Leu Leu Gly Glu Ile Ile Tyr Ile Val Leu

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<210> 70
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Ile Tyr Ile Val Leu Leu Val Leu Asp Thr Val Gly Ala Gly Asn
1 5 10 15

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<213> RhD

<220>
<223> Residue 352-366

<400> 71
Val Gly Ala Gly Asn Gly Met Ile Gly Phe Gln Val Leu Leu Ser
1 5 10 15

<210> 72
<211> 15
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<400> 72
Ile Trp Lys Ala Pro His Glu Ala Lys Tyr Phe Asp Asp Gln Val
1 5 10 15

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<400> 73
Arg Ser Val Arg Arg Cys Leu Pro Leu Cys Ala Leu Thr Leu Glu
1 5 10 15

<210> 74
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<400> 74
Trp Met Phe Trp Pro Ser Val Asn Ser Ala Leu Leu Arg Ser Pro
1 5 10 15

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<211> 15
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<220>
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<400> 75
Met Ala Ala Ile Gly Leu Gly Phe Leu Thr Ser Ser Phe Arg Arg
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<400> 76
Ser Ser Phe Arg Arg His Ser Trp Ser Ser Val Ala Phe Asn Leu
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<400> 77
Phe Leu Ser Gln Phe Pro Ser Gly Lys Val Val Ile Thr Leu Phe
1 5 10 15

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<400> 78
Val Ile Thr Leu Phe Ser Ile Arg Leu Ala Thr Met Ser Ala Leu
1 5 10 15

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<400> 79
Thr Met Ser Ala Leu Ser Val Leu Ile Ser Val Asp Ala Val Leu
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Val Asp Ala Val Leu Gly Lys Val Asn Leu Ala Gln Leu Val Val
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<400> 81
Val Thr Ala Leu Gly Asn Leu Arg Met Val Ile Ser Asn Ile Phe
1 5 10 15

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<400> 82
Ile Ser Asn Ile Phe Asn Thr Asp Tyr His Met Asn Met Met His
1 5 10 15

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<400> 83
Met Asn Met Met His Ile Tyr Val Phe Ala Ala Tyr Phe Gly Leu
1 5 10 15

<210> 84
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<400> 84
Ala Tyr Phe Gly Leu Ser Val Ala Trp Cys Leu Pro Lys Pro Leu
1 5 10 15

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<400> 85
Leu Pro Lys Pro Leu Pro Glu Gly Thr Glu Asp Lys Asp Gln Thr
1 5 10 15

<210> 86
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<400> 86
Asp Lys Asp Gln Thr Ala Thr Ile Pro Ser Leu Ser Ala Met Leu
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Leu Ser Ala Met Leu Gly Ala Leu Phe Leu Trp Ile Phe Trp Pro
1 5 10 15

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<400> 88
Trp Ile Phe Trp Pro Ser Phe Asn Ser Ala Leu Leu Arg Ser Pro
1 5 10 15

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<400> 89
Leu Leu Arg Ser Pro Ile Glu Arg Lys Asn Ala Val Phe Asn Thr
1 5 10 15

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<400> 90
Ala Val Phe Asn Thr Tyr Tyr Ala Val Ala Val Ser Val Val Thr
1 5 10 15

<210> 91
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<400> 91

Ser Leu Ala His Pro Gln Gly Lys Ile Ser Lys Thr Tyr Val His
1 5 10 15

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<220>
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<400> 92
Lys Thr Tyr Val His Ser Ala Val Leu Ala Gly Gly Val Ala Val
1 5 10 15

<210> 93
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<400> 93
Leu Gly Leu Val Ala Gly Leu Ile Ser Val Gly Gly Ala Lys Tyr
1 5 10 15

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<400> 94
Gly Gly Ala Lys Tyr Leu Pro Gly Cys Cys Asn Arg Val Leu Gly
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<400> 95
Asn Arg Val Leu Gly Ile Pro His Ser Ser Ile Met Gly Tyr Asn
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<211> 15
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<220>
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Ile Met Gly Tyr Asn Phe Ser Leu Leu Gly Leu Leu Gly Glu Ile
1 5 10 15

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<220>
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<400> 97
Leu Leu Gly Glu Ile Ile Tyr Ile Val Leu Leu Val Leu Asp Thr
1 5 10 15

<210> 98
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<400> 98
Leu Val Leu Asp Thr Val Gly Ala Gly Asn Gly Met Ile Gly Phe
1 5 10 15

<210> 99
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<220>
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<400> 99
Leu Leu Asn Leu Lys Ile Trp Lys Ala Pro His Glu Ala Lys Tyr
1 5 10 15

<210> 100
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<220>

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<400> 100
His Glu Ala Lys Tyr Phe Asp Asp Gln Val Phe Trp Lys Phe Pro
1 5 10 15

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<220>
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<400> 101
Met Arg Phe Thr Phe Pro Leu Met Ala Ile Val Leu Glu Ile Ala
1 5 10 15

<210> 102
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 11-25

<400> 102
Val Leu Glu Ile Ala Met Ile Val Leu Phe Gly Leu Phe Val Glu
1 5 10 15

<210> 103
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 21-35

<400> 103
Gly Leu Phe Val Glu Tyr Glu Thr Asp Gln Thr Val Leu Glu Gln
1 5 10 15

<210> 104
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 31-45

<400> 104
Thr Val Leu Glu Gln Leu Asn Ile Thr Lys Pro Thr Asp Met Gly
1 5 10 15

<210> 105

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 41-55

<400> 105

Pro Thr Asp Met Gly Ile Phe Phe Glu Leu Tyr Pro Leu Phe Gln
1 5 10 15

<210> 106

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 51-65

<400> 106

Tyr Pro Leu Phe Gln Asp Val His Val Met Ile Phe Val Gly Phe
1 5 10 15

<210> 107

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 61-75

<400> 107

Ile Phe Val Gly Phe Gly Phe Leu Met Thr Phe Leu Lys Lys Tyr
1 5 10 15

<210> 108

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 71-85

<400> 108

Phe Leu Lys Lys Tyr Gly Phe Ser Ser Val Gly Ile Asn Leu Leu
1 5 10 15

<210> 109

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 81-95

<400> 109

Gly	Ile	Asn	Leu	Leu	Val	Ala	Ala	Leu	Gly	Leu	Gln	Trp	Gly	Thr
1				5					10					15

<210> 110

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 91-105

<400> 110

Leu	Gln	Trp	Gly	Thr	Ile	Val	Gln	Gly	Ile	Leu	Gln	Ser	Gln	Gly
1				5					10					15

<210> 111

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 101-115

<400> 111

Leu	Gln	Ser	Gln	Gly	Gln	Lys	Phe	Asn	Ile	Gly	Ile	Lys	Asn	Met
1				5					10					15

<210> 112

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 111-125

<400> 112

Gly	Ile	Lys	Asn	Met	Ile	Asn	Ala	Asp	Phe	Ser	Ala	Ala	Thr	Val
1				5					10					15

<210> 113

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 121-135

<400> 113
Ser Ala Ala Thr Val Leu Ile Ser Phe Gly Ala Val Leu Gly Lys
1 5 10 15

<210> 114
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 131-145

<400> 114
Ala Val Leu Gly Lys Thr Ser Pro Thr Gln Met Leu Ile Met Thr
1 5 10 15

<210> 115
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 141-155

<400> 115
Met Leu Ile Met Thr Ile Leu Glu Ile Val Phe Phe Ala His Asn
1 5 10 15

<210> 116
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 151-165

<400> 116
Phe Phe Ala His Asn Glu Tyr Leu Val Ser Glu Ile Phe Lys Ala
1 5 10 15

<210> 117
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 161-175

<400> 117
Glu Ile Phe Lys Ala Ser Asp Ile Gly Ala Ser Met Thr Ile His
1 5 10 15

<210> 118
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 171-185

<400> 118
Ser Met Thr Ile His Ala Phe Gly Ala Tyr Phe Gly Leu Ala Val
1 5 10 15

<210> 119
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 181-195

<400> 119
Phe Gly Leu Ala Val Ala Gly Ile Leu Tyr Arg Ser Gly Leu Arg
1 5 10 15

<210> 120
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 191-205

<400> 120
Arg Ser Gly Leu Arg Lys Gly His Glu Asn Glu Glu Ser Ala Tyr
1 5 10 15

<210> 121
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 201-215

<400> 121
Glu Glu Ser Ala Tyr Tyr Ser Asp Leu Phe Ala Met Ile Gly Thr
1 5 10 15

<210> 122
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 211-225

<400> 122
Ala Met Ile Gly Thr Leu Phe Leu Trp Met Phe Trp Pro Ser Phe
1 5 10 15

<210> 123
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 221-235

<400> 123
Phe Trp Pro Ser Phe Asn Ser Ala Ile Ala Glu Pro Gly Asp Lys
1 5 10 15

<210> 124
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 231-245

<400> 124
Glu Pro Gly Asp Lys Gln Cys Arg Ala Ile Val Asp Thr Tyr Phe
1 5 10 15

<210> 125
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 241-255

<400> 125
Val Asp Thr Tyr Phe Ser Leu Ala Ala Cys Val Leu Thr Ala Phe
1 5 10 15

<210> 126
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 251-265

<400> 126
Val Leu Thr Ala Phe Ala Phe Ser Ser Leu Val Glu His Arg Gly

1

5

10

15

<210> 127
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 261-275

<400> 127
Val Glu His Arg Gly Lys Leu Asn Met Val His Ile Gln Asn Ala
1 5 10 15

<210> 128
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 271-285

<400> 128
His Ile Gln Asn Ala Thr Leu Ala Gly Gly Val Ala Val Gly Thr
1 5 10 15

<210> 129
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 281-295

<400> 129
Val Ala Val Gly Thr Cys Ala Asp Met Ala Ile His Pro Phe Gly
1 5 10 15

<210> 130
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 291-305

<400> 130
Ile His Pro Phe Gly Ser Met Ile Ile Gly Ser Ile Ala Gly Met
1 5 10 15

<210> 131
<211> 15

<212> PRT
<213> Rh50 GP

<220>
<223> Residue 301-315

<400> 131
Ser Ile Ala Gly Met Val Ser Val Leu Gly Tyr Lys Phe Leu Thr
1 5 10 15

<210> 132
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 311-325

<400> 132
Tyr Lys Phe Leu Thr Pro Leu Phe Thr Thr Lys Leu Arg Ile His
1 5 10 15

<210> 133
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 321-335

<400> 133
Lys Leu Arg Ile His Asp Thr Cys Gly Val His Asn Leu His Gly
1 5 10 15

<210> 134
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 331-345

<400> 134
His Asn Leu His Gly Leu Pro Gly Val Val Gly Gly Leu Ala Gly
1 5 10 15

<210> 135
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 341-355

<400> 135
Gly Gly Leu Ala Gly Ile Val Ala Val Ala Met Gly Ala Ser Asn
1 5 10 15

<210> 136
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 351-365

<400> 136
Met Gly Ala Ser Asn Thr Ser Met Ala Met Gln Ala Ala Ala Leu
1 5 10 15

<210> 137
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 361-375

<400> 137
Gln Ala Ala Ala Leu Gly Ser Ser Ile Gly Thr Ala Val Val Gly
1 5 10 15

<210> 138
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 371-385

<400> 138
Thr Ala Val Val Gly Gly Leu Met Thr Gly Leu Ile Leu Lys Leu
1 5 10 15

<210> 139
<211> 15
<212> PRT
<213> Rh50 GP

<220>
<223> Residue 381-395

<400> 139
Leu Ile Leu Lys Leu Pro Leu Trp Gly Gln Pro Ser Asp Gln Asn
1 5 10 15

<210> 140

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 391-405

<400> 140

Pro Ser Asp Gln Asn Cys Tyr Asp Asp Ser Val Tyr Trp Lys Val
1 5 10 15

<210> 141

<211> 15

<212> PRT

<213> Rh50 GP

<220>

<223> Residue 395-409

<400> 141

Asn Cys Tyr Asp Asp Ser Val Tyr Trp Lys Val Pro Lys Thr Arg
1 5 10 15

<210> 142

<211> 16

<212> PRT

<213> BR

<400> 142

Ser Lys Tyr Pro Asn Cys Ala Tyr Lys Thr Thr Gln Ala Asn Lys His
1 5 10 15

<210> 143

<211> 15

<212> PRT

<213> AV2

<400> 143

Thr Ile Pro Glu Gln Ser Phe Gln Gly Ser Pro Ser Ala Asp Thr
1 5 10 15

<210> 144

<211> 15

<212> PRT

<213> AV4

<400> 144

Thr Val Lys Ala Asp Phe Glu Phe Ser Ser Ala Pro Ala Pro Asp
1 5 10 15

<210> 145
 <211> 15
 <212> PRT
 <213> AV6

<400> 145
 Thr Val Glu Glu Arg Gln Gln Phe Gly Glu Leu Pro Val Ser Glu
 1 5 10 15

<210> 146
 <211> 16
 <212> PRT
 <213> P23

<400> 146
 Glu Leu Lys Ile Ile Ser Arg Cys Gln Val Cys Met Lys Lys Arg His
 1 5 10 15

<210> 147
 <211> 13
 <212> PRT
 <213> HA

<400> 147
 Pro Lys Tyr Val Lys Gln Asn Thr Leu Lys Leu Ala Thr
 1 5 10

<210> 148
 <211> 417
 <212> PRT
 <213> RhCE

<220>
 <223> Residue 111-125

<400> 148
 Met Ser Ser Lys Tyr Pro Arg Ser Val Arg Arg Cys Leu Pro Leu Cys
 1 5 10 15

Ala Leu Thr Leu Glu Ala Ala Leu Ile Leu Leu Phe Tyr Phe Phe Thr
 20 25 30

His Tyr Asp Ala Ser Leu Glu Asp Gln Lys Gly Leu Val Ala Ser Tyr
 35 40 45

Gln Val Gly Gln Asp Leu Thr Val Met Ala Ala Ile Gly Leu Gly Phe
 50 55 60

Leu Thr Ser Ser Phe Arg Arg His Ser Trp Ser Ser Val Ala Phe Asn
 65 70 75 80

Leu Phe Met Leu Ala Leu Gly Val Gln Trp Ala Ile Leu Leu Asp Gly
 85 90 95

Phe Leu Ser Gln Phe Pro Ser Gly Lys Val Val Ile Thr Leu Phe Ser
 100 105 110
 Ile Arg Leu Ala Thr Met Ser Ala Met Ser Val Leu Ile Ser Ala Gly
 115 120 125
 Ala Val Leu Gly Lys Val Asn Leu Ala Gln Leu Val Val Met Val Leu
 130 135 140
 Val Glu Val Thr Ala Leu Gly Thr Leu Arg Met Val Ile Ser Asn Ile
 145 150 155 160
 Phe Asn Thr Asp Tyr His Met Asn Leu Arg His Phe Tyr Val Phe Ala
 165 170 175
 Ala Tyr Phe Gly Leu Thr Val Ala Trp Cys Leu Pro Lys Pro Leu Pro
 180 185 190
 Lys Gly Thr Glu Asp Asn Asp Gln Arg Ala Thr Ile Pro Ser Leu Ser
 195 200 205
 Ala Met Leu Gly Ala Leu Phe Leu Trp Met Phe Trp Pro Ser Val Asn
 210 215 220
 Ser Pro Leu Leu Arg Ser Pro Ile Gln Arg Lys Asn Ala Met Phe Asn
 225 230 235 240
 Thr Tyr Tyr Ala Leu Ala Val Ser Val Val Thr Ala Ile Ser Gly Ser
 245 250 255
 Ser Leu Ala His Pro Gln Arg Lys Ile Ser Met Thr Tyr Val His Ser
 260 265 270
 Ala Val Leu Ala Gly Gly Val Ala Val Gly Thr Ser Cys His Leu Ile
 275 280 285
 Pro Ser Pro Trp Leu Ala Met Val Leu Gly Leu Val Ala Gly Leu Ile
 290 295 300
 Ser Ile Gly Gly Ala Lys Cys Leu Pro Val Cys Cys Asn Arg Val Leu
 305 310 315 320
 Gly Ile His His Ile Ser Val Met His Ser Ile Phe Ser Leu Leu Gly
 325 330 335
 Leu Leu Gly Glu Ile Thr Tyr Ile Val Leu Leu Val Leu His Thr Val
 340 345 350
 Trp Asn Gly Asn Gly Met Ile Gly Phe Gln Val Leu Leu Ser Ile Gly
 355 360 365
 Glu Leu Ser Leu Ala Ile Val Ile Ala Leu Thr Ser Gly Leu Leu Thr
 370 375 380
 Gly Leu Leu Leu Asn Leu Lys Ile Trp Lys Ala Pro His Val Ala Lys
 385 390 395 400

Tyr Phe Asp Asp Gln Val Phe Trp Lys Phe Pro His Leu Ala Val Gly
 405 410 415

Phe

<210> 149
 <211> 417
 <212> PRT
 <213> RhCe

<220>
 <223> Residue 121-135

<400> 149
 Met Ser Ser Lys Tyr Pro Arg Ser Val Arg Arg Cys Leu Pro Leu Cys
 1 5 10 15

Ala Leu Thr Leu Glu Ala Ala Leu Ile Leu Leu Phe Tyr Phe Phe Thr
 20 25 30

His Tyr Asp Ala Ser Leu Glu Asp Gln Lys Gly Leu Val Ala Ser Tyr
 35 40 45

Gln Val Gly Gln Asp Leu Thr Val Met Ala Ala Ile Gly Leu Gly Phe
 50 55 60

Leu Thr Ser Ser Phe Arg Arg His Ser Trp Ser Ser Val Ala Phe Asn
 65 70 75 80

Leu Phe Met Leu Ala Leu Gly Val Gln Trp Ala Ile Leu Leu Asp Gly
 85 90 95

Phe Leu Ser Gln Phe Pro Ser Gly Lys Val Val Ile Thr Leu Phe Ser
 100 105 110

Ile Arg Leu Ala Thr Met Ser Ala Met Ser Val Leu Ile Ser Ala Gly
 115 120 125

Ala Val Leu Gly Lys Val Asn Leu Ala Gln Leu Val Val Met Val Leu
 130 135 140

Val Glu Val Thr Ala Leu Gly Thr Leu Arg Met Val Ile Ser Asn Ile
 145 150 155 160

Phe Asn Thr Asp Tyr His Met Asn Leu Arg His Phe Tyr Val Phe Ala
 165 170 175

Ala Tyr Phe Gly Leu Thr Val Ala Trp Cys Leu Pro Lys Pro Leu Pro
 180 185 190

Lys Gly Thr Glu Asp Asn Asp Gln Arg Ala Thr Ile Pro Ser Leu Ser
 195 200 205

Ala Met Leu Gly Ala Leu Phe Leu Trp Met Phe Trp Pro Ser Val Asn
 210 215 220

Ser Ala Leu Leu Arg Ser Pro Ile Gln Arg Lys Asn Ala Met Phe Asn
 225 230 235 240

Thr Tyr Tyr Ala Leu Ala Val Ser Val Val Thr Ala Ile Ser Gly Ser
 245 250 255

Ser Leu Ala His Pro Gln Arg Lys Ile Ser Met Thr Tyr Val His Ser
 260 265 270

Ala Val Leu Ala Gly Gly Val Ala Val Gly Thr Ser Cys His Leu Ile
 275 280 285

Pro Ser Pro Trp Leu Ala Met Val Leu Gly Leu Val Ala Gly Leu Ile
 290 295 300

Ser Ile Gly Gly Ala Lys Cys Leu Pro Val Cys Cys Asn Arg Val Leu
 305 310 315 320

Gly Ile His His Ile Ser Val Met His Ser Ile Phe Ser Leu Leu Gly
 325 330 335

Leu Leu Gly Glu Ile Thr Tyr Ile Val Leu Leu Val Leu His Thr Val
 340 345 350

Trp Asn Gly Asn Gly Met Ile Gly Phe Gln Val Leu Leu Ser Ile Gly
 355 360 365

Glu Leu Ser Leu Ala Ile Val Ile Ala Leu Thr Ser Gly Leu Leu Thr
 370 375 380

Gly Leu Leu Leu Asn Leu Lys Ile Trp Lys Ala Pro His Val Ala Lys
 385 390 395 400

Tyr Phe Asp Asp Gln Val Phe Trp Lys Phe Pro His Leu Ala Val Gly
 405 410 415

Phe

<210> 150

<211> 417

<212> PRT

<213> RhcE

<220>

<223> Residue 131-145

<400> 150

Met Ser Ser Lys Tyr Pro Arg Ser Val Arg Arg Cys Leu Pro Leu Trp
 1 5 10 15

Ala Leu Thr Leu Glu Ala Ala Leu Ile Leu Leu Phe Tyr Phe Phe Thr
 20 25 30

His Tyr Asp Ala Ser Leu Glu Asp Gln Lys Gly Leu Val Ala Ser Tyr
 35 40 45

Gln Val Gly Gln Asp Leu Thr Val Met Ala Ala Leu Gly Leu Gly Phe
 50 55 60

Leu Thr Ser Asn Phe Arg Arg His Ser Trp Ser Ser Val Ala Phe Asn
 65 70 75 80

Leu Phe Met Leu Ala Leu Gly Val Gln Trp Ala Ile Leu Leu Asp Gly
 85 90 95

Phe Leu Ser Gln Phe Pro Pro Gly Lys Val Val Ile Thr Leu Phe Ser
 100 105 110

Ile Arg Leu Ala Thr Met Ser Ala Met Ser Val Leu Ile Ser Ala Gly
 115 120 125

Ala Val Leu Gly Lys Val Asn Leu Ala Gln Leu Val Val Met Val Leu
 130 135 140

Val Glu Val Thr Ala Leu Gly Thr Leu Arg Met Val Ile Ser Asn Ile
 145 150 155 160

Phe Asn Thr Asp Tyr His Met Asn Leu Arg His Phe Tyr Val Phe Ala
 165 170 175

Ala Tyr Phe Gly Leu Thr Val Ala Trp Cys Leu Pro Lys Pro Leu Pro
 180 185 190

Lys Gly Thr Glu Asp Asn Asp Gln Arg Ala Thr Ile Pro Ser Leu Ser
 195 200 205

Ala Met Leu Gly Ala Leu Phe Leu Trp Met Phe Trp Pro Ser Val Asn
 210 215 220

Ser Pro Leu Leu Arg Ser Pro Ile Gln Arg Lys Asn Ala Met Phe Asn
 225 230 235 240

Thr Tyr Tyr Ala Leu Ala Val Ser Val Val Thr Ala Ile Ser Gly Ser
 245 250 255

Ser Leu Ala His Pro Gln Arg Lys Ile Ser Met Thr Tyr Val His Ser
 260 265 270

Ala Val Leu Ala Gly Gly Val Ala Val Gly Thr Ser Cys His Leu Ile
 275 280 285

Pro Ser Pro Trp Leu Ala Met Val Leu Gly Leu Val Ala Gly Leu Ile
 290 295 300

Ser Ile Gly Gly Ala Lys Cys Leu Pro Val Cys Cys Asn Arg Val Leu
 305 310 315 320

Gly Ile His His Ile Ser Val Met His Ser Ile Phe Ser Leu Leu Gly
 325 330 335

Leu Leu Gly Glu Ile Thr Tyr Ile Val Leu Leu Val Leu His Thr Val
 340 345 350

Trp Asn Gly Asn Gly Met Ile Gly Phe Gln Val Leu Leu Ser Ile Gly
 355 360 365

Glu Leu Ser Leu Ala Ile Val Ile Ala Leu Thr Ser Gly Leu Leu Thr
 370 375 380

Gly Leu Leu Leu Asn Leu Lys Ile Trp Lys Ala Pro His Val Ala Lys
 385 390 395 400

Tyr Phe Asp Asp Gln Val Phe Trp Lys Phe Pro His Leu Ala Val Gly
 405 410 415

Phe

<210> 151
 <211> 417
 <212> PRT
 <213> RhD

<220>
 <223> Residue 141-155

<400> 151
 Met Ser Ser Lys Tyr Pro Arg Ser Val Arg Arg Cys Leu Pro Leu Trp
 1 5 10 15

Ala Leu Thr Leu Glu Ala Ala Leu Ile Leu Leu Phe Tyr Phe Phe Thr
 20 25 30

His Tyr Asp Ala Ser Leu Glu Asp Gln Lys Gly Leu Val Ala Ser Tyr
 35 40 45

Gln Val Gly Gln Asp Leu Thr Val Met Ala Ala Ile Gly Leu Gly Phe
 50 55 60

Leu Thr Ser Ser Phe Arg Arg His Ser Trp Ser Ser Val Ala Phe Asn
 65 70 75 80

Leu Phe Met Leu Ala Leu Gly Val Gln Trp Ala Ile Leu Leu Asp Gly
 85 90 95

Phe Leu Ser Gln Phe Pro Ser Gly Lys Val Val Ile Thr Leu Phe Ser
 100 105 110

Ile Arg Leu Ala Thr Met Ser Ala Leu Ser Val Leu Ile Ser Val Asp
 115 120 125

Ala Val Leu Gly Lys Val Asn Leu Ala Gln Leu Val Val Met Val Leu
 130 135 140

Val Glu Val Thr Ala Leu Gly Asn Leu Arg Met Val Ile Ser Asn Ile
 145 150 155 160

Phe Asn Thr Asp Tyr His Met Asn Met Met His Ile Tyr Val Phe Ala
 165 170 175

Ala Tyr Phe Gly Leu Ser Val Ala Trp Cys Leu Pro Lys Pro Leu Pro
 180 185 190

Glu Gly Thr Glu Asp Asn Asp Gln Thr Ala Thr Ile Pro Ser Leu Ser
 195 200 205

Ala Met Leu Gly Ala Leu Phe Leu Trp Ile Phe Trp Pro Ser Phe Asn
 210 215 220

Ser Ala Leu Leu Arg Ser Pro Ile Glu Arg Lys Asn Ala Val Phe Asn
 225 230 235 240

Thr Tyr Tyr Ala Val Ala Val Ser Val Val Thr Ala Ile Ser Gly Ser
 245 250 255

Ser Leu Ala His Pro Gln Gly Lys Ile Ser Lys Thr Tyr Val His Ser
 260 265 270

Ala Val Leu Ala Gly Gly Val Ala Val Gly Thr Ser Cys His Leu Ile
 275 280 285

Pro Ser Pro Trp Leu Ala Met Val Leu Gly Leu Val Ala Gly Leu Ile
 290 295 300

Ser Val Gly Gly Ala Lys Tyr Leu Pro Gly Cys Cys Asn Arg Val Leu
 305 310 315 320

Gly Ile Pro His Ser Ser Ile Met Gly Tyr Asn Phe Ser Leu Leu Gly
 325 330 335

Leu Leu Gly Glu Ile Ile Tyr Ile Val Leu Leu Val Leu Asp Thr Val
 340 345 350

Gly Ala Gly Asn Gly Met Ile Gly Phe Gln Val Leu Leu Ser Ile Gly
 355 360 365

Glu Leu Ser Leu Ala Ile Val Ile Ala Leu Thr Ser Gly Leu Leu Thr
 370 375 380

Gly Leu Leu Leu Asn Leu Lys Ile Trp Lys Ala Pro His Glu Ala Lys
 385 390 395 400

Tyr Phe Asp Asp Gln Val Phe Trp Lys Phe Pro His Leu Ala Val Gly
 405 410 415

Phe

<210> 152

<211> 417

<212> PRT

<213> Rhce

<220>

<223> Residue 151-165

<400> 152

Met Ser Ser Lys Tyr Pro Arg Ser Val Arg Arg Cys Leu Pro Leu Trp
 1 5 10 15

Ala Leu Thr Leu Glu Ala Ala Leu Ile Leu Leu Phe Tyr Phe Phe Thr
 20 25 30

His Tyr Asp Ala Ser Leu Glu Asp Gln Lys Gly Leu Val Ala Ser Tyr
 35 40 45

Gln Val Gly Gln Asp Leu Thr Val Met Ala Ala Leu Gly Leu Gly Phe
 50 55 60

Leu Thr Ser Asn Phe Arg Arg His Ser Trp Ser Ser Val Ala Phe Asn
 65 70 75 80

Leu Phe Met Leu Ala Leu Gly Val Gln Trp Ala Ile Leu Leu Asp Gly
 85 90 95

Phe Leu Ser Gln Phe Pro Pro Gly Lys Val Val Ile Thr Leu Phe Ser
 100 105 110

Ile Arg Leu Ala Thr Met Ser Ala Met Ser Val Leu Ile Ser Ala Gly
 115 120 125

Ala Val Leu Gly Lys Val Asn Leu Ala Gln Leu Val Val Met Val Leu
 130 135 140

Val Glu Val Thr Ala Leu Gly Thr Leu Arg Met Val Ile Ser Asn Ile
 145 150 155 160

Phe Asn Thr Asp Tyr His Met Asn Leu Arg His Phe Tyr Val Phe Ala
 165 170 175

Ala Tyr Phe Gly Leu Thr Val Ala Trp Cys Leu Pro Lys Pro Leu Pro
 180 185 190

Lys Gly Thr Glu Asp Asn Asp Gln Arg Ala Thr Ile Pro Ser Leu Ser
 195 200 205

Ala Met Leu Gly Ala Leu Phe Leu Trp Met Phe Trp Pro Ser Val Asn
 210 215 220

Ser Ala Leu Leu Arg Ser Pro Ile Gln Arg Lys Asn Ala Met Phe Asn
 225 230 235 240

Thr Tyr Tyr Ala Leu Ala Val Ser Val Val Thr Ala Ile Ser Gly Ser
 245 250 255

Ser Leu Ala His Pro Gln Arg Lys Ile Ser Met Thr Tyr Val His Ser
 260 265 270

Ala Val Leu Ala Gly Gly Val Ala Val Gly Thr Ser Cys His Leu Ile
 275 280 285

Pro Ser Pro Trp Leu Ala Met Val Leu Gly Leu Val Ala Gly Leu Ile
 290 295 300

Ser Ile Gly Gly Ala Lys Cys Leu Pro Val Cys Cys Asn Arg Val Leu
305 310 315 320

Gly Ile His His Ile Ser Val Met His Ser Ile Phe Ser Leu Leu Gly
325 330 335

Leu Leu Gly Glu Ile Thr Tyr Ile Val Leu Leu Val Leu His Thr Val
340 345 350

Trp Asn Gly Asn Gly Met Ile Gly Phe Gln Val Leu Leu Ser Ile Gly
355 360 365

Glu Leu Ser Leu Ala Ile Val Ile Ala Leu Thr Ser Gly Leu Leu Thr
370 375 380

Gly Leu Leu Leu Asn Leu Lys Ile Trp Lys Ala Pro His Val Ala Lys
385 390 395 400

Tyr Phe Asp Asp Gln Val Phe Trp Lys Phe Pro His Leu Ala Val Gly
405 410 415

Phe